

Amendments to the Specification:

Please replace the paragraph, beginning at page 1, line 16, with the following rewritten paragraph:

Since ~~having~~the conventional piezoelectric loudspeaker has the single diaphragm and piezoelectric material, the conventional piezoelectric loudspeaker has difficulty in reproducing of a-sound in a wide frequency range. Specifically, this loudspeaker ~~having~~has the piezoelectric material vibrating by deforming, which causes the piezoelectric material to have a high Q factor, hence having a narrow reproducing frequency range.

Please replace the paragraph, beginning at page 2, line 18, with the following rewritten paragraph:

FIG. 1 is a perspective view of a loudspeaker system according to an exemplary embodiment of the present invention. A front face of a loudspeaker box 1 having a rectangular shape has a tweeter 2, a squawker 3, a woofer 4, and a bass-reflex port 5 provided from the upper direction to the lower direction. ~~Tweeter~~The tweeter 2 has a sound reproduction frequency range, such as 5kHz to 100kHz. ~~Squawker~~The squawker 3 has a sound reproduction frequency range from 500Hz to 5kHz. ~~Woofer~~The woofer 4 has a sound reproduction frequency range from 20Hz to 500Hz. ~~Bass~~The bass-reflex port 5 emphasizes a portion lower than 100Hz in the reproduction range of the woofer 4.

Please replace the paragraph, beginning at page 3, line 12, with the following rewritten paragraph:

FIG. 4 is a cross-sectional view of diaphragm 7 of tweeter 2 shown in FIG. 2 taken at line 4-4. Areas 8 to 10 are provided on diaphragm 7. Diaphragm 7 is made of SiO₂ and has a thickness of 30000Å. A back face of diaphragm 7 has base 11 that is made of Si and has a thickness of 500μm. Base 11, a frame body provided around openings 8a to 10a, has openings 8a to 10a corresponding to areas 8 to 10, respectively (opening 8a is not shown). Openings 8a to 10a have respective areas corresponding to areas 8 to 10 so that opening 9a is smaller than opening 8a while opening 10a is smaller than opening 9a. The base as the frame body provides areas 8 to 10 with sound reproduction frequency ranges different from each other-easily.

Please replace the paragraph, beginning at page 3, line 22, with the following rewritten paragraph:

Diaphragm 7 has lower electrodes 12 made of platinum thereon. Lower electrodes 12 corresponding to openings 8a to 10a has thereon piezoelectric thin film 14 via buffer layer 13. Piezoelectric thin film 14 is made of a ceramic of a mixture of lead titanate and lead zirconate consisting of lead-zirconate-titanate (PZT). Lower electrodes 12 around piezoelectric thin films 14 have thereon insulating films 15 made of resin on which upper electrodes 16 are provided, respectively. Piezoelectric thin films 14 may be provided on diaphragm 7 at once by a piezoelectric-thin-film-forming process.

Please replace the paragraph, beginning at page 4, line 3, with the following rewritten paragraph:

FIG. 5 is a block diagram of an electronic device according to the embodiment. As shown in FIG. 5, piezoelectric thin films 14 corresponding to areas 8 to 10, respectively, are fed with sound source signals via upper electrodes 16. Sound source 17 is connected ~~with~~to amplifier 18 and amplifier 18 is connected to piezoelectric thin films 14 of areas 8 to 10 in parallel to each other. Piezoelectric thin films 14 of areas 8 to 10 and amplifier 18 have protection circuits 19a to 19c for preventing over-currents between ~~this~~thin films 14 and the amplifier 18. Phase controllers 20a to 20c control phases of signals applied to areas 8 to 10, respectively. Gain adjustment circuits 21a to 21c adjust the amplitudes of signals applied to areas 8 to 10, respectively. This structure provides tweeter 2 with a flat sound pressure frequency characteristic shown in characteristic 102 of FIG. 3 in a wide and high frequency range from 5kHz to 100kHz.

Please replace the paragraph, beginning at page 4, line 16, with the following rewritten paragraph:

Sounds in a-nature include frequency components higher than 20kHz, which human beings cannot hear. For example, a musical instrument, such as a cymbal, emits a sound having a component higher than 20kHz. Human beings hear a sound from 20Hz to 20kHz out of a combination and interference of such sounds having such high frequency components.